DOCUMENT RESUME

ED 379 142 SE 054 410

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TITLE Clouds and Climate Change. Understanding Global Change: Earth Science and Human Impacts. Global Change Instruction Program.
INSTITUTION National Center for Atmospheric Research, Boulder, Colo.
PUB DATE 92
NOTE 20p.; Partially funded by the National Science Foundation.
AVAILABLE FROM NCAR Information and Education Outreach Program, P.O. Box 3000, Boulder, CO 80307-3000.
PUB TYPE Guides - Classroom Use - Teaching Guides (For Teacher) (052)

EDRS PRICE Document Not Available from EDRS.
DESCRIPTORS Climate; *Climate Change; Environmental Education; Global Approach; Higher Education; Instructional Materials; Interdisciplinary Approach; Meteorology; Units of Study
IDENTIFIERS *Clouds; *Global Change

ABSTRACT

The Global Change Instruction Program was designed by college professors to fill a need for interdisciplinary materials on the emerging science of global change. This instructional module introduces the basic features and classifications of clouds and cloud cover, and explains how clouds form, what they are made of, what roles they play in determining climate, and how they both cause and are affected by climate changes. The materials are designed for undergraduate students lacking in advanced training in mathematics and the technical aspects of science. The module is divided into two main sections covering clouds and cloud formation, and clouds and climate; a conclusion; six questions and projects; three appendices; a glossary; and 20 additional reading materials. Section I provides text and diagrams of cloud classification and occurrence, cloud composition, and the underlying physics of cloud formation. Similarly, section II covers changes in Earth's climate from clouds and from carbon dioxide, and cloud-climate feedbacks. Appendices describe cloud patterns on other planets, the energy of clouds, and an activity that involves forming clouds in a bottle. (LZ)

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